

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (Currently Amended) A fuel cell stack comprising: a fuel cell having an inlet, a flow field in fluid communication with said inlet and an outlet in fluid communication with said flow field; a vaporized water source in fluid communication with said inlet; a differential pressure transducer repeatedly measuring a differential pressure across said flow field and generating a set of differential pressure signals; a computer comprising a collection of the set of differential pressure signals measured during operation of the fuel cell; and the computer further comprising a controller in communication with said differential pressure transducer, said controller having executable logic for determining a root-mean-square value from only said collection of the set of differential pressure signals and control circuitry for controlling said vaporized water source in response to the root-mean-square value, wherein the fuel cell stack attains a steady state in less than about 100 seconds at a sampling of about 10 Hz or greater.

2.-3. (Cancelled)

4. (Previously Presented) The fuel cell of claim 1 wherein said controller further comprises executable logic for comparing said root-mean-square value to a threshold value.

5.-16. (Cancelled)